

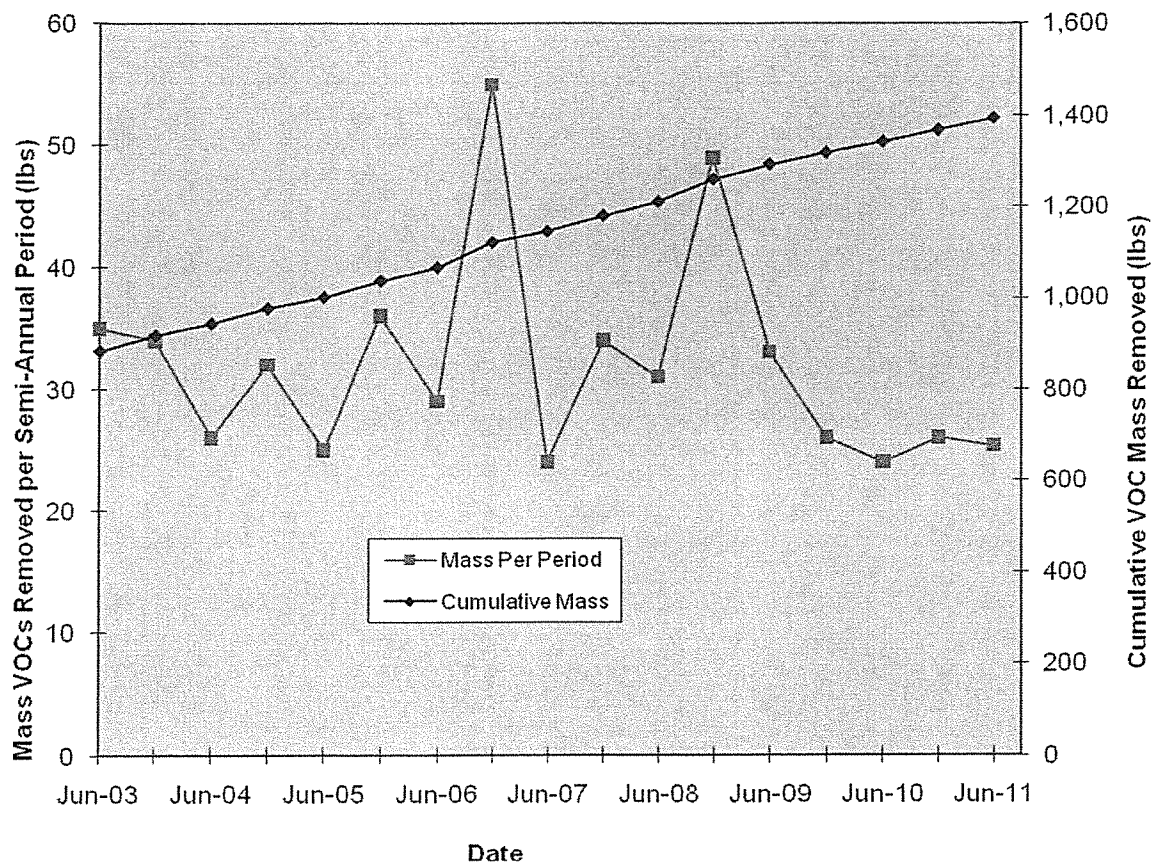
### 3.0 FINDINGS

#### 3.1 GROUNDWATER RECOVERY SYSTEM PERFORMANCE

In accordance with the revised CMIP, evaluation of the groundwater recovery system, including average monthly pumping rates, throughput, and system efficiency was performed by Stantec. A summary of the treatment system performance, including flow readings for each recovery well, is included in Tables 2 and 6. Groundwater recovery has continued at a relatively constant rate during the first half of calendar year 2010. For the period of January 1, 2011 through June 30, 2011, inclusive, a total of 1,850,566 gallons of groundwater have been extracted and treated through the activated carbon system (Tables 2 and 6), and then discharged under the VPDES Permit. As presented in Table 2, the activated carbon treatment system is essentially 100% effective in removing the contaminants.

The treatment system has remained operational, receiving groundwater at a rate of approximately 7 gpm (averaged over the six-month period of record), with the exception of a few hours to perform routine maintenance and to implement needed repairs. The carbon canisters, based on quarterly analytical results, have an operational efficiency of essentially 100% (Table 2). Analytical results are included in Appendix A. Approximately 25 pounds of VOCs were removed in the first half of 2011 (Table 6) based on total VOC concentrations measured during the most recent sampling event at each recovery well location. A summary of the cumulative VOC mass removal rates for the last eight years (2003 through 2011, inclusive) is shown in table and graphic form below as requested by USEPA. The graph shows that VOC mass removal rates have been generally consistent throughout this period, and relatively stable since 2009.

Date	Mass Removed Per Semi-Annual Period (lbs)	Cumulative VOC Mass Removed (lbs)
Dec-02	---	848
Jun-03	35	883
Dec-03	34	917
Jun-04	26	943
Dec-04	32	975
Jun-05	25	1,000
Dec-05	36	1,036
Jun-06	29	1,065
Dec-06	55	1,120
Jun-07	24	1,144
Dec-07	34	1,178
Jun-08	31	1,209
Dec-08	49	1,258
Jun-09	33	1,291
Dec-09	26	1,317
Jun-10	24	1,341
Dec-10	26	1,367
Jun-11	25	1,392



### 3.2 GROUNDWATER FLOW

Groundwater levels were measured at accessible on-site well locations during the subject monitoring event. The groundwater levels recorded in the field were converted to elevations in feet above Mean Sea Level based on surveyed measurement reference point elevations and are summarized in Table 3.

The groundwater elevations were used to generate groundwater contour maps of the shallow and deep aquifers. Both the shallow map (Figure 3) and the deep map (Figure 4) are in general agreement with previous observations. In general, groundwater in the shallow aquifer flows in a south-southeasterly direction with some influences from the groundwater recovery system.

Groundwater flow in the deep aquifer is strongly influenced by the recovery wells. The capture zone in this aquifer is interpreted to extend at least as far as a point approximately midway between 32D and 24D in the east, to a point approximately 200 feet to the west of recovery well 2D in the west, monitoring well 12D in the north, and just south of recovery well 20E to the south.

As reported in a previous (February 2010) Semi-Annual Monitoring Report, the interpreted capture zone with WS-4 shut down for about one month was evaluated. Based on this evaluation, it was concluded that the shutdown of WS-4 was not affecting the effectiveness of the recovery well network to contain the VOC plume. Further, it was noted that the water quality at WS-4, which has shown VOC concentrations at, or under, 200 ug/L since about 2001, and the large open hole interval (i.e., 335 feet) made this well undesirable for continued groundwater recovery due to the potential for the vertical and horizontal migration of VOCs. For these reasons, Cooper requested from USEPA that recovery from this well be discontinued at that time. Further, Cooper requested that both WS-2 (previously shut down as a recovery well) and WS-4 be modified to make them consistent (in terms of the interval monitored) with other deep wells in their vicinity for their continued use in the groundwater monitoring program at the Site. WS-4 was restarted following the December 2009 sampling event, pending feedback from the USEPA on this request. Based on related regulatory correspondence (see Appendix B), Cooper has provided a work plan to evaluate water quality stratification in Section 5 and is seeking USEPA comments and approval to do this work.

### 3.3 GROUNDWATER QUALITY

One shipment of VOC samples was made from the Site to the laboratory during the subject monitoring event. Groundwater samples collected during this monitoring event were analyzed by PACE using EPA Method 8260B for VOCs.

The analytical results for the VOCs are summarized in Table 4 and laboratory data are attached (Appendix A). The historical data for the wells that were sampled are presented in Appendix C. Figure 5 illustrates contaminant concentrations that exceed MCLs at the wells sampled. A synopsis of the MCL exceedances is listed below.

### Regular Sampling Locations (see Table 1)

- The highest PCE concentration (MCL of 5 ug/L) in April 2011 of 2,950 ug/L (see Table 4) was detected in groundwater at recovery well 31D, located near the former source area (East Drain Pit). PCE was found above MCLs in all 4 of the current recovery wells, in 1 (32D) of 5 deep zone wells, and in 3 of 4 shallow zone wells. As shown on Figure 5, MCL exceedances were limited to the area of the current recovery wells and ART wells and the area immediately downgradient of the former source area.
- The highest TCE, a degradation product of PCE, concentration (MCL of 5 ug/L) of 928 ug/L was detected in groundwater at recovery well 2D located downgradient of the former source area (see Table 4). TCE was found above MCLs in all 4 of the current recovery wells, in none of the deep zone wells, and in all 4 of the shallow zone wells. As shown on Figure 5, MCL exceedances were limited to the area of the current recovery wells and ART wells, and the area immediately downgradient of the former source area.
- The only other COC detected above MCLs was cis-1,2-DCE, which is another degradation product of PCE. Cis-1,2-DCE was found at only 4 locations above MCLs (recovery wells 2D and 31D, and shallow wells 19A and 34A), with the highest concentration found at recovery well 2D (133 ug/L).
- In general, total VOC levels decreased with distance from the original source location, the East Drain Pit.

An inspection of the historical database (see Appendix C) shows that total VOC concentrations in April 2011 in the shallow and deep monitoring wells and former/current recovery wells were generally in-line with recent semi-annual sampling results. As shown in the statistical analysis in Appendix D, the post-ART start-up trends at 2D, 20E, and 31D showed reductions of 79%, 20%, and 46%, respectively.

Longer term, trend analyses of select wells are shown in Appendix D. The VOC levels in monitoring well 21D continue a downward trend since its maximum level in 1991, with a log-linear regression coefficient of 51%. VOC levels in monitoring well 34A, located near recovery wells WS-4 and 35D, have shown an overall downward exponential trend since July 1996, with a regression coefficient of 77%, although the most recent result shows an anomalous increase. VOC levels in monitoring well 32D, located near recovery well WS-4, also exhibited a downward trend with an exponential regression coefficient of 75% over the period of record.

The VOC levels in recovery well 31D, located in proximity to the former source area and the ART Well, showed fluctuating concentrations over the period of record (i.e., 1992 to 2006), with no obvious up or down trend. However, since 2004, the total VOC levels have started to trend downward in recovery well 31D, with a discernable increase in the decline rate since the start-up of the nearby ART system in October 2008. This may represent the effects of the nearby operating ART system. This well remained significantly below its high in April 2004. The VOC levels in recovery well 2D, also located proximal to one of the ART wells, have shown a

downward exponential trend over the period of record with a regression coefficient of 65%. In October 2008, the total VOC levels have started to trend even more downward in recovery well 2D, coincident with the start-up and operation of the ART system. Since 2005, VOC levels at 20E have been generally downward. The post-ART start-up trend at 20E has been generally downward, possibly representing the effects of the nearby ART system. The regression calculations and corresponding graphs are presented in Appendix D.

#### Additional Monitoring Locations

Cooper elected to sample a number of monitoring wells at the Site voluntarily, which are not part of the regular monitoring program. These wells were: 12A; 12D; 15D; 16; 22A; 24A; 24D; 25A; 25D; and 28D. All of these well locations were located beyond the interpreted limits of the CVOC plume, so it was expected that no MCL exceedances would be found. This expectation was confirmed by the laboratory data as no MCL exceedances were found at any of these sampling locations. Table 4 summarizes the analytical results and Figure 5 displays the results.

### 3.4 QUALITY ASSURANCE (QA)

An evaluation of the usability of the April 2011 monitoring event data was performed. The data validation objectives for the subject facility are specified in the QA Project Plan and the CMIP. The EPA "Functional Guidelines for Evaluating Organics Analyses," as modified for EPA Region III, was used as a basis to perform the laboratory data evaluation. The evaluation was based on laboratory data provided by PACE and field data provided by Stantec.

**Field Sampling QA** - In addition to the base samples collected from the monitoring and recovery wells, one duplicate sample was collected from WS-4, consistent with the sampling plan. Relative % differences between the WS-4 sample and duplicate sample were all less than 5%. Because sampling was conducted with the dedicated diffusion samplers, no field blank sample was collected. Based on these results, field sampling procedures for this monitoring event were acceptable.

**Laboratory Holding Times** - Samples for the April 2011 monitoring event were collected on April 27-28, 2011 and received at the laboratory on April 29, 2011. All samples were analyzed by May 4, 2011 (no more than 7 days after collection), which is within the EPA criterion of 14 days for preserved samples.

**Method Blanks** – No target compounds were detected in the Method Blank. However, it is notable that acetone is a well known laboratory artifact.

**System Monitoring Compounds** - System monitoring compound (surrogate) recoveries were determined and reported for all samples in Appendix A. All surrogate recoveries were within EPA limits for all samples analyzed.

**Spike Recoveries** – Laboratory Control Sample (LCS) recoveries (see Appendix A) were within laboratory control limits for all compounds except for bromomethane. Matrix Spike and Matrix Spike Duplicate (MS and MSD) recoveries were outside of laboratory control limits (for the MS,

MSD, or both) for only acetone, bromomethane, and styrene (see Appendix A). None of these compounds are identified as target compounds of concern at this Site.

**Summary** – Based on the evaluation described above, both the field and laboratory methods were acceptable and the usability of the associated laboratory results for the compounds of concern at this Site was confirmed.

### 3.5 GROUNDWATER RECOVERY SYSTEM EFFICIENCY

The groundwater treatment system has been operating in accordance with the CMIP. Standard repairs and/or replacements to wells, pumps, and meters have occurred as necessary in the first half of 2011. The total volume recovered from the current recovery wells WS-1, WS-4, 2D, 20E, 31D, and 35D during the first half of 2011 was 1,850,566 gallons (Tables 2 and 6). The maximum total yield for the reporting period was obtained from well 31D at 479,093 gallons. The lowest total yield from the regular recovery wells was obtained from well 20E at approximately 82,806 gallons.

Based on samples collected quarterly for Outfall 001, the carbon canisters have removed essentially 100% of the contaminants from the effluent stream. The treatment system has removed approximately 25 pounds of VOCs in the first half of 2011 and approximately 1,392 pounds since the current system was placed in operation (Table 6). Select recovery wells have been operating and treating groundwater since the 1980s at the Site, but the current treatment configuration that was approved by the USEPA was not in full place until 1995. As noted in the following section, in the first half of 2011, approximately 0.9 lbs of VOCs were removed by the ART System. Since ART System start-up, this equates to a total VOC removal by the ART System alone of roughly 10.7 lbs.

### 3.6 ART SYSTEM EFFICIENCY

The ART System (ART-1 only) has been running on essentially a continuous basis since its start-up on October 29, 2008. ART-2 and ART-3 were added to the system and went into full-scale, continuous operation on December 3, 2009 and, as of this writing, remain in operation. Water quality sampling results from ART-1 that were collected about six months (in May 2009) after ART System start-up, showed a nearly 100% reduction in the TVOC concentration at ART-1. In December 2009, just prior to start-up of ART-2 and ART-3, water samples were collected from these two locations. Results showed total VOC concentrations on the order of 1,500-3,000 ppb at each well. These concentrations are less than the initial total VOC concentrations at ART-1, but they still represent some of the highest total VOC concentrations at the Site. As shown in the statistical analysis in Appendix D, the post-ART start-up trends at 2D, 20E, and 31D showed reductions of 79%, 20%, and 46%, respectively.

The effluent vapor sample from the ART System discharge stack in 2008 showed a TVOC concentration of 5,963 ug/m<sup>3</sup> ( $3.72 \times 10^{-7}$  lbs/cubic feet). The calculated TVOC emission rate was well below the emission rates used to support the previously issued Exemption from Air Permitting Determination from the VADEQ. Vapor discharge rates from the stack have been measured at about 130 cubic feet/min, which equates to a TVOC emission rate of roughly 2.9 x

$10^{-3}$  lbs/hr. This TVOC emission rate is well below the emission rate used to support the VADEQ-issued Exemption from Air Permitting Determination (i.e.,  $1.4 \times 10^{-2}$  lbs/hr). In December 2009, just after ART-2 and ART-3 were incorporated into the ART strategy at the Site, another air sample was collected from the combined ART System discharge stack. That sample showed a TVOC concentration of  $1,120 \text{ ug/m}^3$ , which, by using the same discharge assumptions stated above, equates to a TVOC emission rate of  $5.45 \times 10^{-4}$  lbs/hr. Another vapor sample was collected from the discharge stack in April 2011, which showed a TVOC concentration of  $405 \text{ ug/m}^3$  (see Appendix A for the laboratory data report). Using the same discharge assumptions as stated above, this value equates to a TVOC emission rate of  $2.0 \times 10^{-4}$  lbs/hr.

Using the TVOC emission rate noted above, roughly 0.9 lbs of VOCs were removed by the ART System during the first half of 2011. Since ART System start-up, this equates to a total VOC removal by the ART System alone of roughly 10.7 lbs.

#### **4.0 FINANCIAL ASSURANCE**

Cooper has a currently issued Liberty Mutual Insurance Company of America bond for \$882,809 from its broker, AON, to cover future financial assurance requirements for this Site (see Appendix E).



## 5.0 SUMMARY

Overall, VOC levels remained largely within the range of historic concentrations at the wells sampled and time trend graphs showing an overall stable or decreasing trend. The total VOC concentration trends at 2D, 31D, and 20E seem to be exhibiting the likely effects of the nearby operating ART remediation wells. Wells will continue to be monitored as specified in the CMIP and as outlined in Table 1. Approximately 25 pounds of VOC contaminants were removed from groundwater in the first half of 2011. This is evidence that the system continues to remediate the contaminant plume. The recovery wells along with the new ART Wells (ART-1, ART-2, and ART-3) appear to be effectively controlling the VOC plume migration. Cooper is evaluating ART system expansion options at present and will advise USEPA accordingly.

Furthermore, natural attenuation processes appear to be operating at the Site. As past Semi-Annual Reports have indicated, in general, as shown in the tables below, the more the distance (both horizontally and vertically) from the former shallow source area behind the Main Plant (i.e., the Former East Drain Pit), the greater the variety and higher relative percentages of PCE breakdown daughter products (i.e., TCE and DCE). Also, in general, total VOC levels decreased with distance from the original source location, the East Drain Pit. Cooper will update the analysis supporting this observation in its annual groundwater monitoring reports.

Well:	1A	1A	Former Recovery Well 1D	Former Recovery Well 1D
Sample Date:	4/28/2011	4/28/2011	11/19/2010	11/19/2010
Lateral Distance from East Drain Pit Area (ft)	50	% of Total CVOCs	50	% of Total CVOCs
Depth of Center of Well Screen (ft)	30		67.5	
Volatile Organic Compounds (ug/l)				
cis-1,2-Dichloroethene	18.2	7%	58.7	62%
Tetrachloroethene	<b>230</b>	88%	<b>14.6</b>	15%
Trichloroethene	<b>12.4</b>	5%	<b>21.7</b>	23%
Total CVOCs	260.6		95.0	

	Recovery Well 31D 4/28/2011	Recovery Well 2D 4/28/2011	Recovery Well 20E 4/28/2011
Lateral Distance from East Drain Pit Area (ft)	50	200	350
Depth of Center of Well Screen or Open Hole Section (ft)	76.5	98.5	124
% of Total CVOCs			
cis-1,2-Dichloroethene	2%	10%	33%
Tetrachloroethene	77%	25%	49%
Trichloroethene	21%	65%	18%

EPA approved the full testing of the ART technology at the Site. In advance of its application at this Site, Cooper applied for, and received, an Exemption from Air Permitting from VADEQ on February 1, 2008 provided TVOCs were less than  $1.4 \times 10^{-2}$  lbs/hr. The first ART Well (ART-1) was installed and tested for its water quality in mid-June 2008. The well was located between 2D and 31D. ART equipment installation and testing was completed in October 2008. ART-2 and ART-3 were added to the system and went into full-scale, continuous operation on December 3, 2009. Water quality sampling results from ART-1 that were collected about six months (in May 2009) after ART System start-up, showed a nearly 100% reduction in the TVOC concentration at ART-1. As shown on the graphs in Appendix D, by November 2010, the post-ART start-up trends at 2D, 20E, and 31D showed reductions of 79%, 20%, and 46%, respectively, since the start-up of ART-1 in October 2008.

On May 13, 2009, roughly six months after ART system start-up, a vapor sample was collected from the discharge stack (24-hour Summa Canister). The vapor sample showed a total VOC concentration of  $1,117 \text{ ug/m}^3$ . Over the operating period of record (i.e., six months), this equates to a total VOC removal of roughly 2.4 lbs (or 0.0024 tons/year). This corresponds to a total VOC emission rate well below the emission rates used to support the previously issued Exemption from Air Permitting Determination from the VADEQ (i.e., 121 lbs/year or 0.0605 tons/year). In December 2009, just after ART-2 and ART-3 were incorporated into the ART strategy at the Site, another air sample was collected from the ART System discharge stack. That sample showed a TVOC concentration of  $1,120 \text{ ug/m}^3$ , which was almost equivalent to the previous result in May 2009. Another vapor sample was collected from the discharge stack in April 2011, which showed a TVOC concentration of  $405 \text{ ug/m}^3$  (see Appendix A for the laboratory data report). Using the same discharge assumptions as stated above, this value equates to a TVOC emission rate of  $2.0 \times 10^{-4}$  lbs/hr. Using this TVOC emission rate, roughly 0.9 lbs of VOCs were removed by the ART System during the first half of 2011, well below the 121 lbs/year limit. Since ART System start-up, this equates to a total VOC removal by the ART System alone of roughly 10.7 lbs.

WS-4 was temporarily shut down about one month prior to the December 3, 2009 monitoring event. Based on the interpreted hydraulic effects, that shutdown is not affecting the effectiveness of the recovery well network to contain the VOC plume. Further, as noted above, the water quality at WS-4, which has shown VOC concentrations at, or under, 200 ug/L since about 2001, and the large open hole interval (i.e., over 300 feet), which increases the potential for vertical plume migration, make this well undesirable for continued groundwater recovery. For these reasons, shutdown of WS-4 may be appropriate. In addition, it may also be appropriate that both WS-2 (previously shut down as a recovery well and with an open hole section extending to 555 feet below ground surface) and WS-4 be modified to make them more consistent (in terms of the interval monitored) with other deep wells in their vicinity for their continued use in the groundwater monitoring program at the Site and to mitigate the potential for excessive vertical plume migration. As one option, the open hole sections of WS-2 and WS-4 could be sealed from the base of the well to roughly 125 feet below ground surface. WS-4 was restarted following the December 2009 sampling event, pending feedback from the USEPA on these requests. Based on related regulatory correspondence (see Appendix B), Cooper has provided below a work plan to

evaluate water quality stratification and is seeking USEPA comments and USEPA approval to proceed with this work.

The pump setting depth at WS-4 is estimated at about 300 feet bgs and the well (6.25" ID) depth is estimated at 345 feet bgs. The recovery pump is "hard-plumbed" with metal piping to the surface appurtenances. Surface casing is set at about 10 feet bgs and shut down water levels have been previously recorded at about 10 feet bgs at this location. Well logs have not been located for WS-4. An inspection of well logs for other deep bedrock wells (like recovery wells 35D and 20E) has shown fracture sets primarily in the interval of 50 to 100 feet bgs. For these reasons, Cooper plans to assess the vertical distribution of target VOCs at WS-4 by following the steps shown below:

- Turn off the pump in WS-4 for a minimum of two weeks;
- Place PDBs in WS-4 at the following depths (all bgs) – 325 feet (if a PDB can be placed beyond the existing recovery pump), 225 feet, 125 feet and 25 feet;
- Wait a minimum of two weeks (or more) and retrieve PDBs for laboratory analysis for VOCs by EPA Method 8260B;
- Restart the pump in WS-4; and
- Evaluate results and provide letter report to USEPA

Finally, Cooper has maintained contact with the property owner (Donnie Foster) in terms of the owner's proposed construction plans for a storage building on the Site. As of this writing, the owner had put redevelopment plans temporarily on hold until the local economic conditions improve.

**ATTACHMENT E**

**VADEQ TOXLARGE Summary of Quarterly Testing for VOCs at Outfall 001 Conducted  
under the RCRA CMIP – July 2008 to October 2011**

Quarterly GAC Effluent Sampling, Summary of Analytical Results, 2008 on  
Cooper Industries - Earlysville, Virginia

Sample Date:		GAC EFFLUENT DATA (1)												QL (2)		
		Jul-08	Oct-08	Jan-09	Apr-09	Jul-09	Oct-09	Jan-10	Apr-10	Jul-10	Oct-10	Jan-11	Apr-11		Jul-11	Oct-11
Volatile Organic Compounds (ug/l)																
Benzene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Bromofom		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Carbon Tetrachloride		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Chlorobenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	50
Chloroform		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
1,2-Dichloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
1,1-Dichloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
trans-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
1,2-Dichloropropane		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
trans-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
Ethylbenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Methylene Chloride		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
Tetrachloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Toluene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	---
Trichloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
Vinyl Chloride		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	10

Notes:

- (1) Only those VOCs noted on both the Laboratory Reports and the VADEQ TOXLARGE Target List are shown
- (2) From VADEQ "TOXLARGE" Target List



Mr. Nelson Olavarria  
Cooper Industries  
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Suite 5800  
Houston, TX 77002

Lab Project ID: 08-4903  
Lab Sample ID: 0807-0561  
Client Sample ID: EP-Carbon5-0701  
Sample Matrix: Aqueous

Client Site: Earlysville, VA  
Client Ref.: Cooper

Date Sampled: 07/01/2008  
Date Received: 07/02/2008

**Volatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	BDL	10	ug/l	MAK	07/08/2008	0074690-1	BDL
Benzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Bromodichloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Bromoform	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Bromomethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
2-Butanone	8260B <sup>(1)</sup>	BDL	10	ug/l	MAK	07/08/2008	0074690-1	BDL
Carbon Disulfide	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Carbon Tetrachloride	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Chlorobenzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Chloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Chloroform	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Chloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Dibromochloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,1-Dichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,2-Dichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,1-Dichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	8.1	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,2-Dichloropropane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Ethylbenzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
2-Hexanone	8260B <sup>(1)</sup>	BDL	10	ug/l	MAK	07/08/2008	0074690-1	BDL
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	BDL	10	ug/l	MAK	07/08/2008	0074690-1	BDL
Methylene chloride	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Styrene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Tetrachloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Toluene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL

(Continued)

Lab Sample ID: 0807-0561  
Client Sample ID: EP-Carbon5-0701

**Volatiles (Cont.)**

1,1,2-Trichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Trichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
Vinyl chloride	8260B <sup>(1)</sup>	BDL	2.0	ug/l	MAK	07/08/2008	0074690-1	BDL
o-Xylene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL
m,p-Xylenes	8260B <sup>(1)</sup>	BDL	5.0	ug/l	MAK	07/08/2008	0074690-1	BDL

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.



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Lab Project ID: 08-7317  
Lab Sample ID: 0810-0557  
Client Sample ID: EP-Carbon5-1001  
Sample Matrix: Aqueous

Client Site: Earlysville, VA  
Client Ref.: Cooper

Date Sampled: 10/01/2008  
Date Received: 10/02/2008

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	BDL	10	ug/l	EAC	10/07/2008	0077730-1	45
Benzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Bromodichloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Bromoform	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Bromomethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
2-Butanone	8260B <sup>(1)</sup>	BDL	10	ug/l	EAC	10/07/2008	0077730-1	BDL
Carbon Disulfide	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Carbon Tetrachloride	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Chlorobenzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Chloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Chloroform	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Chloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Dibromochloromethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,1-Dichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,2-Dichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,1-Dichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,2-Dichloropropane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Ethylbenzene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
2-Hexanone	8260B <sup>(1)</sup>	BDL	10	ug/l	EAC	10/07/2008	0077730-1	BDL
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	BDL	10	ug/l	EAC	10/07/2008	0077730-1	BDL
Methylene chloride	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Styrene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Tetrachloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Toluene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL

(Continued)

Lab Sample ID: 0810-0557  
Client Sample ID: EP-Carbon5-1001

**Volatiles (Cont.)**

1,1,2-Trichloroethane	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Trichloroethene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
Vinyl chloride	8260B <sup>(1)</sup>	BDL	2.0	ug/l	EAC	10/07/2008	0077730-1	BDL
o-Xylene	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL
m,p-Xylenes	8260B <sup>(1)</sup>	BDL	5.0	ug/l	EAC	10/07/2008	0077730-1	BDL

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 303222

Sample: EP-Carbon5-0106		Lab ID: 303222003	Collected: 01/05/09 12:24	Received: 01/06/09 10:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		01/07/09 16:53	67-64-1	
Benzene	ND ug/L		5.0	1		01/07/09 16:53	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		01/07/09 16:53	75-27-4	
Bromoform	ND ug/L		5.0	1		01/07/09 16:53	75-25-2	
Bromomethane	ND ug/L		5.0	1		01/07/09 16:53	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		01/07/09 16:53	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		01/07/09 16:53	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		01/07/09 16:53	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		01/07/09 16:53	108-90-7	
Chloroethane	ND ug/L		5.0	1		01/07/09 16:53	75-00-3	
Chloroform	ND ug/L		5.0	1		01/07/09 16:53	67-66-3	
Chloromethane	ND ug/L		5.0	1		01/07/09 16:53	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		01/07/09 16:53	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		01/07/09 16:53	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		01/07/09 16:53	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		01/07/09 16:53	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		01/07/09 16:53	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		01/07/09 16:53	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		01/07/09 16:53	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		01/07/09 16:53	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		01/07/09 16:53	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		01/07/09 16:53	100-41-4	
2-Hexanone	ND ug/L		10.0	1		01/07/09 16:53	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		01/07/09 16:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		01/07/09 16:53	108-10-1	
Styrene	ND ug/L		5.0	1		01/07/09 16:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		01/07/09 16:53	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		01/07/09 16:53	127-18-4	
Toluene	ND ug/L		5.0	1		01/07/09 16:53	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		01/07/09 16:53	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		01/07/09 16:53	79-00-5	
Trichloroethene	ND ug/L		5.0	1		01/07/09 16:53	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		01/07/09 16:53	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		01/07/09 16:53	1330-20-7	
o-Xylene	ND ug/L		5.0	1		01/07/09 16:53	95-47-6	
4-Bromofluorobenzene (S)	101 %		70-130	1		01/07/09 16:53	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		70-130	1		01/07/09 16:53	17060-07-0	
Toluene-d8 (S)	106 %		70-130	1		01/07/09 16:53	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 308087

Sample: EP-Carbon5-0402		Lab ID: 308087003	Collected: 04/02/09 14:05	Received: 04/03/09 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		04/09/09 01:59	67-64-1	
Benzene	ND ug/L		5.0	1		04/09/09 01:59	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		04/09/09 01:59	75-27-4	
Bromoform	ND ug/L		5.0	1		04/09/09 01:59	75-25-2	
Bromomethane	ND ug/L		5.0	1		04/09/09 01:59	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		04/09/09 01:59	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		04/09/09 01:59	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		04/09/09 01:59	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		04/09/09 01:59	108-90-7	
Chloroethane	ND ug/L		5.0	1		04/09/09 01:59	75-00-3	
Chloroform	ND ug/L		5.0	1		04/09/09 01:59	67-66-3	
Chloromethane	ND ug/L		5.0	1		04/09/09 01:59	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		04/09/09 01:59	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		04/09/09 01:59	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		04/09/09 01:59	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		04/09/09 01:59	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		04/09/09 01:59	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		04/09/09 01:59	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		04/09/09 01:59	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		04/09/09 01:59	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		04/09/09 01:59	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		04/09/09 01:59	100-41-4	
2-Hexanone	ND ug/L		10.0	1		04/09/09 01:59	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		04/09/09 01:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		04/09/09 01:59	108-10-1	
Styrene	ND ug/L		5.0	1		04/09/09 01:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		04/09/09 01:59	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		04/09/09 01:59	127-18-4	
Toluene	ND ug/L		5.0	1		04/09/09 01:59	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		04/09/09 01:59	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		04/09/09 01:59	79-00-5	
Trichloroethene	ND ug/L		5.0	1		04/09/09 01:59	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		04/09/09 01:59	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		04/09/09 01:59	1330-20-7	
o-Xylene	ND ug/L		5.0	1		04/09/09 01:59	95-47-6	
4-Bromofluorobenzene (S)	98 %		70-130	1		04/09/09 01:59	460-00-4	
1,2-Dichloroethane-d4 (S)	105 %		70-130	1		04/09/09 01:59	17060-07-0	
Toluene-d8 (S)	89 %		70-130	1		04/09/09 01:59	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3012259

Sample: EP-CARBON5-0701		Lab ID: 3012259003	Collected: 07/01/09 12:48	Received: 07/02/09 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		07/08/09 19:10	67-64-1	
Benzene	ND	ug/L	5.0	1		07/08/09 19:10	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/08/09 19:10	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/08/09 19:10	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/08/09 19:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/08/09 19:10	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/08/09 19:10	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/08/09 19:10	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/08/09 19:10	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/08/09 19:10	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/08/09 19:10	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/08/09 19:10	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/08/09 19:10	124-48-1	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/08/09 19:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/08/09 19:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		07/08/09 19:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		07/08/09 19:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		07/08/09 19:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/08/09 19:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/09 19:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/09 19:10	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/08/09 19:10	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/08/09 19:10	591-78-6	
Methylene Chloride	ND	ug/L	5.0	1		07/08/09 19:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/08/09 19:10	108-10-1	
Styrene	ND	ug/L	5.0	1		07/08/09 19:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/08/09 19:10	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/08/09 19:10	127-18-4	
Toluene	ND	ug/L	5.0	1		07/08/09 19:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/08/09 19:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/08/09 19:10	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		07/08/09 19:10	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		07/08/09 19:10	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/08/09 19:10	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		07/08/09 19:10	95-47-6	
4-Bromofluorobenzene (S)	96 %		70-130	1		07/08/09 19:10	460-00-4	
1,2-Dichloroethane-d4 (S)	100 %		70-130	1		07/08/09 19:10	17060-07-0	
Toluene-d8 (S)	98 %		70-130	1		07/08/09 19:10	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3016312

Sample: EP-Carbon5-1001		Lab ID: 3016312003	Collected: 10/01/09 12:01	Received: 10/02/09 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/05/09 19:17	67-64-1	
Benzene	ND ug/L		5.0	1		10/05/09 19:17	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/05/09 19:17	75-27-4	
Bromoform	ND ug/L		5.0	1		10/05/09 19:17	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/05/09 19:17	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/05/09 19:17	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/05/09 19:17	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/05/09 19:17	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/05/09 19:17	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/05/09 19:17	75-00-3	
Chloroform	ND ug/L		5.0	1		10/05/09 19:17	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/05/09 19:17	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/05/09 19:17	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		10/05/09 19:17	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/05/09 19:17	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/05/09 19:17	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/05/09 19:17	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/05/09 19:17	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/05/09 19:17	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/05/09 19:17	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/05/09 19:17	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/05/09 19:17	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/05/09 19:17	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		10/05/09 19:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/05/09 19:17	108-10-1	
Styrene	ND ug/L		5.0	1		10/05/09 19:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		10/05/09 19:17	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/05/09 19:17	127-18-4	
Toluene	ND ug/L		5.0	1		10/05/09 19:17	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/05/09 19:17	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/05/09 19:17	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/05/09 19:17	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		10/05/09 19:17	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/05/09 19:17	1330-20-7	
o-Xylene	ND ug/L		5.0	1		10/05/09 19:17	95-47-6	
4-Bromofluorobenzene (S)	101 %		70-130	1		10/05/09 19:17	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		70-130	1		10/05/09 19:17	17060-07-0	
Toluene-d8 (S)	87 %		70-130	1		10/05/09 19:17	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3020635

Sample: EP-CARBON5-0104		Lab ID: 3020635003	Collected: 01/04/10 12:16	Received: 01/05/10 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		01/06/10 11:28	67-64-1	
Benzene	ND ug/L		5.0	1		01/06/10 11:28	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		01/06/10 11:28	75-27-4	
Bromoform	ND ug/L		5.0	1		01/06/10 11:28	75-25-2	
Bromomethane	ND ug/L		5.0	1		01/06/10 11:28	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		01/06/10 11:28	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		01/06/10 11:28	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		01/06/10 11:28	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		01/06/10 11:28	108-90-7	
Chloroethane	ND ug/L		5.0	1		01/06/10 11:28	75-00-3	
Chloroform	ND ug/L		5.0	1		01/06/10 11:28	67-66-3	
Chloromethane	ND ug/L		5.0	1		01/06/10 11:28	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		01/06/10 11:28	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		01/06/10 11:28	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		01/06/10 11:28	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		01/06/10 11:28	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		01/06/10 11:28	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		01/06/10 11:28	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		01/06/10 11:28	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		01/06/10 11:28	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		01/06/10 11:28	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		01/06/10 11:28	100-41-4	
2-Hexanone	ND ug/L		10.0	1		01/06/10 11:28	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		01/06/10 11:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		01/06/10 11:28	108-10-1	
Styrene	ND ug/L		5.0	1		01/06/10 11:28	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		01/06/10 11:28	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		01/06/10 11:28	127-18-4	
Toluene	ND ug/L		5.0	1		01/06/10 11:28	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		01/06/10 11:28	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		01/06/10 11:28	79-00-5	
Trichloroethene	ND ug/L		5.0	1		01/06/10 11:28	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		01/06/10 11:28	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		01/06/10 11:28	1330-20-7	
o-Xylene	ND ug/L		5.0	1		01/06/10 11:28	95-47-6	
4-Bromofluorobenzene (S)	96 %		70-130	1		01/06/10 11:28	460-00-4	
1,2-Dichloroethane-d4 (S)	99 %		70-130	1		01/06/10 11:28	17060-07-0	
Toluene-d8 (S)	97 %		70-130	1		01/06/10 11:28	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA

Pace Project No.: 3025482

Sample: EP-CARBON 5-0401		Lab ID: 3025482003	Collected: 04/01/10 12:31	Received: 04/02/10 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		04/08/10 14:08	67-64-1	
Benzene	ND ug/L		5.0	1		04/08/10 14:08	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		04/08/10 14:08	75-27-4	
Bromoform	ND ug/L		5.0	1		04/08/10 14:08	75-25-2	
Bromomethane	ND ug/L		5.0	1		04/08/10 14:08	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		04/08/10 14:08	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		04/08/10 14:08	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		04/08/10 14:08	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		04/08/10 14:08	108-90-7	
Chloroethane	ND ug/L		5.0	1		04/08/10 14:08	75-00-3	
Chloroform	ND ug/L		5.0	1		04/08/10 14:08	67-66-3	
Chloromethane	ND ug/L		5.0	1		04/08/10 14:08	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		04/08/10 14:08	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		04/08/10 14:08	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		04/08/10 14:08	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		04/08/10 14:08	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		04/08/10 14:08	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		04/08/10 14:08	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		04/08/10 14:08	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		04/08/10 14:08	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		04/08/10 14:08	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		04/08/10 14:08	100-41-4	
2-Hexanone	ND ug/L		10.0	1		04/08/10 14:08	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		04/08/10 14:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		04/08/10 14:08	108-10-1	
Styrene	ND ug/L		5.0	1		04/08/10 14:08	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		04/08/10 14:08	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		04/08/10 14:08	127-18-4	
Toluene	ND ug/L		5.0	1		04/08/10 14:08	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		04/08/10 14:08	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		04/08/10 14:08	79-00-5	
Trichloroethene	ND ug/L		5.0	1		04/08/10 14:08	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		04/08/10 14:08	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		04/08/10 14:08	1330-20-7	
o-Xylene	ND ug/L		5.0	1		04/08/10 14:08	95-47-6	
4-Bromofluorobenzene (S)	95 %		70-130	1		04/08/10 14:08	460-00-4	
1,2-Dichloroethane-d4 (S)	96 %		70-130	1		04/08/10 14:08	17060-07-0	
Toluene-d8 (S)	94 %		70-130	1		04/08/10 14:08	2037-26-5	



## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3030561

Sample: EP_CARBON5_0706		Lab ID: 3030561003	Collected: 07/06/10 14:11	Received: 07/07/10 10:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		07/12/10 22:16	67-64-1	
Benzene	ND ug/L		5.0	1		07/12/10 22:16	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		07/12/10 22:16	75-27-4	
Bromoform	ND ug/L		5.0	1		07/12/10 22:16	75-25-2	
Bromomethane	ND ug/L		5.0	1		07/12/10 22:16	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		07/12/10 22:16	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		07/12/10 22:16	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		07/12/10 22:16	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		07/12/10 22:16	108-90-7	
Chloroethane	ND ug/L		5.0	1		07/12/10 22:16	75-00-3	
Chloroform	ND ug/L		5.0	1		07/12/10 22:16	67-66-3	
Chloromethane	ND ug/L		5.0	1		07/12/10 22:16	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		07/12/10 22:16	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		07/12/10 22:16	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		07/12/10 22:16	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		07/12/10 22:16	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		07/12/10 22:16	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		07/12/10 22:16	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		07/12/10 22:16	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		07/12/10 22:16	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		07/12/10 22:16	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		07/12/10 22:16	100-41-4	
2-Hexanone	ND ug/L		10.0	1		07/12/10 22:16	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		07/12/10 22:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		07/12/10 22:16	108-10-1	
Styrene	ND ug/L		5.0	1		07/12/10 22:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		07/12/10 22:16	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		07/12/10 22:16	127-18-4	
Toluene	ND ug/L		5.0	1		07/12/10 22:16	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		07/12/10 22:16	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		07/12/10 22:16	79-00-5	
Trichloroethene	ND ug/L		5.0	1		07/12/10 22:16	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		07/12/10 22:16	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		07/12/10 22:16	179601-23-1	
o-Xylene	ND ug/L		5.0	1		07/12/10 22:16	95-47-6	
4-Bromofluorobenzene (S)	101 %		70-130	1		07/12/10 22:16	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		70-130	1		07/12/10 22:16	17060-07-0	
Toluene-d8 (S)	96 %		70-130	1		07/12/10 22:16	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA

Pace Project No.: 3034953

Sample: EP-Carbon5-1004		Lab ID: 3034953003	Collected: 10/04/10 13:20	Received: 10/05/10 10:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/06/10 17:53	67-64-1	
Benzene	ND ug/L		5.0	1		10/06/10 17:53	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/06/10 17:53	75-27-4	
Bromoform	ND ug/L		5.0	1		10/06/10 17:53	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/06/10 17:53	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/06/10 17:53	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/06/10 17:53	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/06/10 17:53	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/06/10 17:53	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/06/10 17:53	75-00-3	
Chloroform	ND ug/L		5.0	1		10/06/10 17:53	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/06/10 17:53	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/06/10 17:53	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		10/06/10 17:53	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/06/10 17:53	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/06/10 17:53	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/06/10 17:53	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/06/10 17:53	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/06/10 17:53	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/06/10 17:53	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/06/10 17:53	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/06/10 17:53	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/06/10 17:53	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		10/06/10 17:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/06/10 17:53	108-10-1	
Styrene	ND ug/L		5.0	1		10/06/10 17:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/06/10 17:53	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/06/10 17:53	127-18-4	
Toluene	ND ug/L		5.0	1		10/06/10 17:53	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/06/10 17:53	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/06/10 17:53	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/06/10 17:53	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		10/06/10 17:53	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/06/10 17:53	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/06/10 17:53	95-47-6	
4-Bromofluorobenzene (S)	91 %		70-130	1		10/06/10 17:53	460-00-4	
1,2-Dichloroethane-d4 (S)	95 %		70-130	1		10/06/10 17:53	17060-07-0	
Toluene-d8 (S)	88 %		70-130	1		10/06/10 17:53	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA

Pace Project No.: 3039488

Sample: EP-Carbon5-0104		Lab ID: 3039488003	Collected: 01/04/11 14:25	Received: 01/05/11 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/07/11 13:55	67-64-1	
Benzene	ND	ug/L	5.0	1		01/07/11 13:55	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/07/11 13:55	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/07/11 13:55	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/07/11 13:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/07/11 13:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/07/11 13:55	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/07/11 13:55	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/07/11 13:55	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/07/11 13:55	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/07/11 13:55	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/07/11 13:55	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/07/11 13:55	124-48-1	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/07/11 13:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/07/11 13:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/07/11 13:55	75-35-4	
cis-1,2-Dichloroethene	9.3	ug/L	5.0	1		01/07/11 13:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/07/11 13:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/07/11 13:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/07/11 13:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/07/11 13:55	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/07/11 13:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/07/11 13:55	591-78-6	
Methylene Chloride	ND	ug/L	5.0	1		01/07/11 13:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/07/11 13:55	108-10-1	
Styrene	ND	ug/L	5.0	1		01/07/11 13:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/07/11 13:55	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/07/11 13:55	127-18-4	
Toluene	ND	ug/L	5.0	1		01/07/11 13:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/07/11 13:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/07/11 13:55	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		01/07/11 13:55	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		01/07/11 13:55	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/07/11 13:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/07/11 13:55	95-47-6	
4-Bromofluorobenzene (S)	98	%	70-130	1		01/07/11 13:55	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		01/07/11 13:55	17060-07-0	
Toluene-d8 (S)	94	%	70-130	1		01/07/11 13:55	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3044425

Sample: EP-Carbon5-0405		Lab ID: 3044425003	Collected: 04/05/11 10:10	Received: 04/06/11 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		04/11/11 14:40	67-64-1	
Benzene	ND ug/L		5.0	1		04/11/11 14:40	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		04/11/11 14:40	75-27-4	
Bromoform	ND ug/L		5.0	1		04/11/11 14:40	75-25-2	
Bromomethane	ND ug/L		5.0	1		04/11/11 14:40	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		04/11/11 14:40	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		04/11/11 14:40	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		04/11/11 14:40	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		04/11/11 14:40	108-90-7	
Chloroethane	ND ug/L		5.0	1		04/11/11 14:40	75-00-3	
Chloroform	ND ug/L		5.0	1		04/11/11 14:40	67-66-3	
Chloromethane	ND ug/L		5.0	1		04/11/11 14:40	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		04/11/11 14:40	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		04/11/11 14:40	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		04/11/11 14:40	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		04/11/11 14:40	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		04/11/11 14:40	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		04/11/11 14:40	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		04/11/11 14:40	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		04/11/11 14:40	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		04/11/11 14:40	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		04/11/11 14:40	100-41-4	
2-Hexanone	ND ug/L		10.0	1		04/11/11 14:40	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		04/11/11 14:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		04/11/11 14:40	108-10-1	
Styrene	ND ug/L		5.0	1		04/11/11 14:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		04/11/11 14:40	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		04/11/11 14:40	127-18-4	
Toluene	ND ug/L		5.0	1		04/11/11 14:40	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		04/11/11 14:40	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		04/11/11 14:40	79-00-5	
Trichloroethene	ND ug/L		5.0	1		04/11/11 14:40	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		04/11/11 14:40	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		04/11/11 14:40	179601-23-1	
o-Xylene	ND ug/L		5.0	1		04/11/11 14:40	95-47-6	
4-Bromofluorobenzene (S)	108 %		70-130	1		04/11/11 14:40	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		70-130	1		04/11/11 14:40	17060-07-0	
Toluene-d8 (S)	99 %		70-130	1		04/11/11 14:40	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA

Pace Project No.: 3049640

Sample: EP-Carbon5-0705		Lab ID: 3049640003	Collected: 07/05/11 11:44	Received: 07/06/11 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		07/08/11 22:00	67-64-1	
Benzene	ND	ug/L	5.0	1		07/08/11 22:00	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/08/11 22:00	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/08/11 22:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/08/11 22:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/08/11 22:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/08/11 22:00	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/08/11 22:00	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/08/11 22:00	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/08/11 22:00	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/08/11 22:00	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/08/11 22:00	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/08/11 22:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/08/11 22:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/08/11 22:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		07/08/11 22:00	75-35-4	
cis-1,2-Dichloroethene	7.9	ug/L	5.0	1		07/08/11 22:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		07/08/11 22:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/08/11 22:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/11 22:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/11 22:00	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/08/11 22:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/08/11 22:00	591-78-6	
Methylene Chloride	ND	ug/L	5.0	1		07/08/11 22:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/08/11 22:00	108-10-1	
Styrene	ND	ug/L	5.0	1		07/08/11 22:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/08/11 22:00	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/08/11 22:00	127-18-4	
Toluene	ND	ug/L	5.0	1		07/08/11 22:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/08/11 22:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/08/11 22:00	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		07/08/11 22:00	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		07/08/11 22:00	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/08/11 22:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/08/11 22:00	95-47-6	
4-Bromofluorobenzene (S)	97 %		70-130	1		07/08/11 22:00	460-00-4	
1,2-Dichloroethane-d4 (S)	97 %		70-130	1		07/08/11 22:00	17060-07-0	
Toluene-d8 (S)	94 %		70-130	1		07/08/11 22:00	2037-26-5	

## ANALYTICAL RESULTS

Project: Earlysville, VA  
Pace Project No.: 3055184

Sample: EP-Carbon5-1005		Lab ID: 3055184003	Collected: 10/05/11 11:57	Received: 10/06/11 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/14/11 16:56	67-64-1	
Benzene	ND ug/L		5.0	1		10/14/11 16:56	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/14/11 16:56	75-27-4	
Bromoform	ND ug/L		5.0	1		10/14/11 16:56	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/14/11 16:56	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/14/11 16:56	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/14/11 16:56	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/14/11 16:56	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/14/11 16:56	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/14/11 16:56	75-00-3	
Chloroform	ND ug/L		5.0	1		10/14/11 16:56	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/14/11 16:56	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/14/11 16:56	124-48-1	
1,1-Dichloroethane	ND ug/L		5.0	1		10/14/11 16:56	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/14/11 16:56	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/14/11 16:56	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/14/11 16:56	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/14/11 16:56	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/14/11 16:56	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/14/11 16:56	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/14/11 16:56	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/14/11 16:56	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/14/11 16:56	591-78-6	
Methylene Chloride	ND ug/L		5.0	1		10/14/11 16:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/14/11 16:56	108-10-1	
Styrene	ND ug/L		5.0	1		10/14/11 16:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/14/11 16:56	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/14/11 16:56	127-18-4	
Toluene	ND ug/L		5.0	1		10/14/11 16:56	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/14/11 16:56	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/14/11 16:56	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/14/11 16:56	79-01-6	
Vinyl chloride	ND ug/L		2.0	1		10/14/11 16:56	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/14/11 16:56	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/14/11 16:56	95-47-6	
4-Bromofluorobenzene (S)	104 %		70-130	1		10/14/11 16:56	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %		70-130	1		10/14/11 16:56	17060-07-0	
Toluene-d8 (S)	101 %		70-130	1		10/14/11 16:56	2037-26-5	

## **ATTACHMENT F**

**Calculation of Monthly Maximum and Long-Term Average Flows for Outfall 001 for Period of  
January 2004 to October 2011**

Monthly Flow Readings  
VPDES Testing, Cooper Industries, Earlysville, Virginia  
Discharge Site 001

Date	Meter Reading (gals)	Monthly Total (gals)	Monthly Total (Mgals)	Daily Average (Mgals)
1/2/2004	106,218,600	493,840	0.4938	0.0154
1/30/2004	106,674,690	456,090	0.4561	0.0163
3/1/2004	107,122,510	447,820	0.4478	0.0144
4/1/2004	107,577,470	454,960	0.4550	0.0147
5/5/2004	108,107,850	530,380	0.5304	0.0156
6/1/2004	108,746,010	638,160	0.6382	0.0236
7/1/2004	109,356,810	610,800	0.6108	0.0204
8/2/2004	109,943,500	586,690	0.5867	0.0183
9/1/2004	110,487,800	544,300	0.5443	0.0181
10/1/2004	111,042,620	554,820	0.5548	0.0185
11/1/2004	111,609,420	566,800	0.5668	0.0183
12/1/2004	112,134,775	525,355	0.5254	0.0175
1/3/2005	112,673,580	538,805	0.5388	0.0163
2/1/2005	102,996,670	446,990	0.4470	0.0154
3/1/2005	103,412,160	415,490	0.4155	0.0148
3/31/2005	103,866,450	454,290	0.4543	0.0151
5/2/2005	104,333,760	467,310	0.4673	0.0146
6/1/2005	104,837,320	503,560	0.5036	0.0168
7/1/2005	105,308,935	471,615	0.4716	0.0157
8/1/2005	105,752,760	443,825	0.4438	0.0143
9/1/2005	106,246,510	493,750	0.4938	0.0159
10/3/2005	106,715,790	469,280	0.4693	0.0147
11/1/2005	107,138,010	422,220	0.4222	0.0146
12/1/2005	107,551,260	413,250	0.4133	0.0138
1/3/2006	107,963,590	412,330	0.4123	0.0125
2/1/2006	108,372,850	409,260	0.4093	0.0141
3/1/2006	108,661,590	288,740	0.2887	0.0103
4/3/2006	109,105,880	444,290	0.4443	0.0135
5/1/2006	109,517,870	411,990	0.4120	0.0147
6/1/2006	109,907,780	389,910	0.3899	0.0126
7/5/2006	110,277,060	369,280	0.3693	0.0109
8/1/2006	110,662,870	385,810	0.3858	0.0143
9/1/2006	111,029,985	367,115	0.3671	0.0118
10/2/2006	111,377,830	347,845	0.3478	0.0112
1/2/2007	112,450,800	357,657	0.3577	0.0117
4/2/2007	113,426,840	325,347	0.3253	0.0108
7/2/2007	114,524,438	365,866	0.3659	0.0115
10/1/2007	115,903,250	459,604	0.4596	0.0152
1/2/2008	116,633,460	243,403	0.2434	0.0079
4/1/2008	117,528,690	298,410	0.2984	0.0099
7/1/2008	118,455,150	308,820	0.3088	0.0102
10/1/2008	119,324,980	289,943	0.2899	0.0095
1/5/2009	120,358,970	344,663	0.3447	0.0108
4/2/2009	121,304,540	315,190	0.3152	0.0109
7/1/2009	122,228,430	307,963	0.3080	0.0103
10/1/2009	123,041,700	271,090	0.2711	0.0095
1/4/2010	123,933,815	297,372	0.2974	0.0094
4/1/2010	125,085,340	383,842	0.3838	0.0132
7/1/2010	126,166,150	360,270	0.3603	0.0119
10/1/2010	127,149,690	327,847	0.3278	0.0107
1/3/2011	128,080,000	310,103	0.3101	0.0099
4/1/2011	128,931,950	283,983	0.2840	0.0097
7/1/2011	129,838,125	302,058	0.3021	0.0100
10/2/2011	130,709,440	290,438	0.2904	0.0094
			Max Monthly Flow (Mgals/Day)*	0.035
			Ave Flow (Mgals/Day)*	0.020

Notes:

\*= Includes 0.5X Factor of Safety to allow for system modifications required under the CMIP



## **ATTACHMENT G**

**Calculation of Monthly Minimum and Maximum pH Values and Long-Term Average  
Temperature Values for Outfall 001 for Period of October 2004 to October 2011**

Table 6

pH Meter Check/Calibration  
VPDES Testing  
Cooper Industries  
Earlsville, Virginia

Sampler	Test Date	Sampling/Test Time	Calibration Time	Meter Model	pH Buffer (su)	Date Received	Observed pH (su)	Buffer Temp (deg. C)	pH Buffer 7.0 (su)	Date Received	Observed pH (su)	Buffer Temp (deg. C)	pH Buffer 10.0 (su)	Date Received	Observed pH (su)	pH Check 7.0 pH Buffer (su)	001 pH (su)	001 Temp. (deg. C)	Summer (s) or Winter (w)
CAS	10/5/2004	12:10	10:11	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	7/27/2003	7.0	NA	NA	NA	NA	NA	6.7	17.5	
CAS	11/5/2004	13:16	10:49	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	7/27/2003	7.0	NA	NA	NA	NA	NA	7.0	16.0	
CAS	12/4/2004	11:44	9:30	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	7/27/2003	7.0	NA	NA	NA	NA	NA	6.7	12.5	w
CAS	1/3/2005	10:00	8:50	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	7/27/2003	7.0	NA	NA	NA	NA	NA	7.1	9.0	w
CAS	2/2/2005	11:50	10:30	106 pH-ATC	4.0	8/25/2004	4.0	NA	7.0	8/25/2004	7.0	NA	NA	NA	NA	NA	7.0	9.0	w
CAS	3/4/2005	16:30	15:15	106 pH-ATC	4.0	8/25/2004	4.0	NA	7.0	8/25/2004	7.0	NA	NA	NA	NA	NA	6.8	10.5	w
CAS	4/4/2005	13:42	13:13	106 pH-ATC	4.0	8/25/2004	4.0	NA	7.0	8/25/2004	7.0	NA	NA	NA	NA	NA	6.9	13.5	
CAS	5/4/2005	12:17	10:25	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.6	14.9	
CAS	7/5/2005	14:51	11:15	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.9	17.0	s
CAS	8/3/2005	14:06	11:05	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.9	21.0	s
CAS	9/2/2005	11:54	10:05	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.4	21.0	s
CAS	10/5/2005	11:54	9:30	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	7.0	20.0	s
CAS	11/2/2005	13:06	9:15	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.7	18.5	
CAS	12/5/2005	9:38	8:56	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.6	15.1	
CAS	1/5/2006	11:36	9:25	106 pH-ATC	4.0	8/24/2004	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.6	7.5	w
CAS	3/30/2006	11:15	9:23	106 pH-ATC	4.0	2/23/2006	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.5	11.0	w
CAS	5/10/2006	8:21	8:13	106 pH-ATC	4.0	2/23/2006	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.5	12.2	
CAS	7/5/2006	13:19	9:28	106 pH-ATC	4.0	2/23/2006	4.0	NA	7.0	8/24/2004	7.0	NA	NA	NA	NA	NA	6.5	15.1	
CAS	14/2007	12:48	9:47	106 pH-ATC	4.0	2/23/2006	4.0	NA	7.0	2/23/2006	7.0	NA	NA	NA	NA	NA	6.9	21.9	s
CAS	4/3/2007	12:05	11:17	pH5-OAK	4.0	2/23/2006	4.0	18.5	7.0	2/23/2006	7.0	18.3	10.0	10/2/2006	10.1	7.0	7.09	19.9	w
CAS	7/2/2007	10:54	9:28	pH5-OAK	4.0	2/23/2006	4.0	23.6	7.0	2/23/2006	7.0	21.7	10.0	10/2/2006	10.0	7.0	6.98	23.5	s
CAS	10/3/2007	10:58	9:06	pH5-OAK	4.0	2/23/2006	4.0	22.5	7.0	2/23/2006	7.0	21.7	10.0	10/2/2006	10.0	7.0	7.05	23.9	s
CAS	1/3/2008	12:29	11:07	pH5-OAK	4.0	7/24/2007	4.0	23.4	7.0	7/24/2007	7.0	23.1	10.0	7/24/2007	10.0	7.0	7.01	24.1	w
CAS	4/2/2008	11:06	9:26	pH5-OAK	4.0	7/24/2007	4.0	22.7	7.0	7/24/2007	7.0	22.3	10.0	7/24/2007	10.0	7.0	6.87	14.5	s
CAS	10/1/2008	11:37	8:30	pH5-OAK	4.0	7/24/2007	4.0	22.6	7.0	7/24/2007	7.0	21.6	10.0	7/24/2007	10.0	7.0	6.83	19.5	s
CAS	15/2009	11:24	8:41	pH5-OAK	4.0	7/24/2007	4.0	21.7	7.0	7/24/2007	7.0	21.6	10.0	7/24/2007	10.0	7.0	6.98	11.2	w
CAS	4/2/2009	13:50	9:18	pH5-OAK	4.0	4/1/2009	4.0	26.2	7.0	4/1/2009	7.0	22.7	10.0	4/1/2009	10.0	7.0	6.95	13.6	s
CAS	7/1/2009	11:29	9:45	pH5-OAK	4.0	4/1/2009	4.0	21.6	7.0	4/1/2009	7.0	22.5	10.0	4/1/2009	10.0	7.0	7.35	20.0	s
CAS	14/2010	11:36	9:15	pH5-OAK	4.0	4/1/2009	4.0	19.7	7.0	4/1/2009	7.0	21.6	10.0	4/1/2009	10.0	7.0	7.51	16.0	
CAS	4/1/2010	11:45	9:29	pH5-OAK	4.0	4/1/2009	4.0	22.0	7.0	4/1/2009	7.0	21.4	10.0	4/1/2009	10.0	7.0	6.58	8.4	w
CAS	7/6/2010	13:30	11:10	pH5-OAK	4.0	6/30/2010	4.0	22.5	7.0	6/30/2010	7.0	22.3	10.0	6/30/2010	10.0	7.0	6.81	14.7	
CAS	10/4/2010	12:35	11:12	pH5-OAK	4.0	6/30/2010	4.0	22.1	7.0	6/30/2010	7.0	22.6	10.0	6/30/2010	10.0	7.0	6.74	21.3	s
CAS	1/4/2011	13:42	11:25	pH5-OAK	4.0	6/30/2010	4.0	22.3	7.0	6/30/2010	7.0	22.2	10.0	6/30/2010	10.0	7.0	6.88	16.7	
CAS	4/5/2011	9:35	8:45	pH5-OAK	4.0	6/30/2010	4.0	22.3	7.0	6/30/2010	7.0	22.2	10.0	6/30/2010	10.0	7.0	6.89	10.4	w
CAS	7/5/2011	10:55	9:30	pH5-OAK	4.0	3/18/2011	4.0	17.3	7.0	3/18/2011	7.0	18.0	10.0	3/18/2011	10.0	7.0	6.63	15.0	
KRR	10/5/2011	11:10	10:00	pH5-OAK	4.0	3/18/2011	4.0	23.5	7.0	3/18/2011	7.0	23.3	10.0	3/18/2011	10.0	7.0	6.61	21.7	s
								23.5	7.0	3/18/2011	7.0	23.3	10.0	3/18/2011	10.0	7.0	6.93	16.0	
																pH Min	6.40		
																pH Max	7.51		
																Ave T (Summer)	20.7		
																Ave T (Winter)	12.1		

## **ATTACHMENT H**

### **November 2006 Sampling Results for TSS at Outfall 001**

December 14, 2006

Mr. Nelson Olavarria  
Cooper Industries  
600 Travis  
Suite 5800  
Houston, TX 77002

Dear Mr. Olavarria:

Enclosed are analytical results for samples submitted to Pace Analytical by Cooper Industries. The samples were received on November 17, 2006. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Parameters printed in italics represent Non-NELAC accredited parameters. Please reference Pace project number 06-7276 when inquiring about this report.

Client Site: Earlysville, VA  
Client Ref.: Cooper

Pace Sample Identification	Client Sample Identification
0611-2980	Trip Blank
0611-2981	Dup
0611-2982	WS-3A
0611-2983	MW-13D
0611-2984	MW-32D
0611-2985	MW-14D
0611-2986	MW-27A
0611-2987	MW-27D
0611-2988	MW-23D
0611-2989	MW-22D
0611-2990	MW-21D
0611-2991	MW-18D
0611-2992	WS-3
0611-2993	MW-2A

Pace Sample Identification	Client Sample Identification
0611-2994	MW-1A
0611-2995	MW-19A
0611-2996	MW-1D
0611-2997	MW-31D
0611-2998	MW-2D
0611-2999	MW-20E
0611-3000	WS-1
0611-3001	MW-26D
0611-3002	WS-2
0611-3003	MW-35D
0611-3004	WS-4
0611-3005	SYSTEM OUTFALL
0611-3006	WS-5
0611-3011	MW-34A

**General Comments:** Cooler temperature 2 ° C upon receipt. Ice was present.

Mr. Nelson Olavarria  
Cooper Industries  
600 Travis  
Suite 5800  
Houston, TX 77002

Client Site: Earlysville, VA  
Client Ref.: Cooper

Lab Project ID: 06-7276  
Lab Sample ID: 0611-3005  
Client Sample ID: SYSTEM OUTFALL  
Sample Matrix: Aqueous

Date Sampled: 11/16/2006  
Date Received: 11/17/2006

**General Chemistry**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Ammonia	350.1 <sup>(1)</sup>	<0.10	0.10	mg/l	CK0	12/01/2006	0055378-1	<0.10
Biochemical Oxygen Demand	405.1 <sup>(1)</sup>	18	6.0	mg/l	DAH	11/17/2006	0055146-1	<2.0
Total Suspended Solids	160.2 <sup>(1)</sup>	<4.0	4.0	mg/l	APD	11/29/2006	0055355-1	<4.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1983, Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio.

**Sample Comments:** Results reported on an as received basis.